

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Inventors:	Jeffery Brunet, et al.	Examiner: Marisol Figueroa
Serial No.:	10/822,092	Group Art Unit: 2617
Filed:	April 9, 2004	Docket No.: 200704084-2
Title:	Mobile Care Framework	

---

**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is filed in response to the Final Office Action mailed September 23, 2008 and Notice of Appeal mailed December 18, 2008.

**AUTHORIZATION TO DEBIT ACCOUNT**

It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Hewlett-Packard Development Company's deposit account no. 08-2025.

### **I. REAL PARTY IN INTEREST**

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

## **II. RELATED APPEALS AND INTERFERENCES**

There are no known related appeals or interferences known to Appellant, Appellant's legal representative, or assignee that will directly affect or be directly affected by or have a bearing on the Appeal Board's decision in the pending appeal.

### **III. STATUS OF CLAIMS**

Claims 1-2, 4-14, and 16-29 are pending in the application and stand finally rejected. The rejection of claims 1-2, 4-14, and 16-29 is appealed.

#### **IV. STATUS OF AMENDMENTS**

No amendments were made after receipt of the Final Office Action. All amendments have been entered.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

The following provides a concise explanation of the subject matter defined in each of the claims involved in the appeal, referring to the specification by page and line number and to the drawings by reference characters, as required by 37 C.F.R.

§ 41.37(c)(1)(v). Each element of the claims is identified by a corresponding reference to the specification and drawings where applicable. Note that the citation to passages in the specification and drawings for each claim element does not imply that the limitations from the specification and drawings should be read into the corresponding claim element or that these are the sole sources in the specification supporting the claim features.

### **Claim 1**

A method of providing customer care within a mobile care framework, comprising:

capturing device profile data over-the-air from a device agent within a mobile device, the device profile data comprising user-specific and device-specific data (A device agent 700 is a software application that resides and runs directly on the mobile device, sends data from the device, and receives incoming data from our application server 200: p. 9, lines 14-16. The device agent gathers diagnostic data: p. 10, line 1.);

matching the device profile data to a customer profile, the customer profile including a profile history (The analytics engine 340 utilizes rule-sets to match the criteria of known fixes or resolutions and returns the identifier(s) to the matching resolution(s) contained in the on-site Mobile Care Data Store 320: p. 13, lines 17-20.);

correlating the device profile data to a database of known mobile device issues and associated solutions to the mobile device issues using an analytics engine programmed to identify a solution for the mobile device (A determination is made if there is an update 340A or solution corresponding to the customer's profile history and device profile, and if so, what is the optimal update or solution: p. 18, lines 15-19.);

forwarding to the mobile device over-the-air the solution identified by the analytics engine for execution by the device agent, wherein the device agent is programmed to capture the device profile data and execute the solution on the mobile

device (The device agent receives and executes at least one solution selectively forwarded over-the-air by the customer care application: p. 7, lines 18-19.);

receiving, to the database from software application developers, updates or patches that match problem criteria of the mobile device issues (Application developers 500 will have a channel to upload application updates and patches through the Master Data Store 300: p. 16, lines 7-9); and

allowing hardware vendors and the software application developers to query the database and obtain statistics on a number of mobile devices with a particular installed software (The master data store is linked to hardware vendors and application developers: p. 16, lines 5-9. Hardware vendors and application developers can query the data store: p. 20, lines 17-18. The interface also preferably provides the developers and vendors 500 access to non-personally identifiable statistics from the Device Profile Data Store 330 such as number of device X with operating system Y. This feature allows the developers and vendors 500 to allocate resources according to install-base: p. 20, lines 9-12.).

#### Claim 2

The method of claim 1 further comprising, allowing the hardware vendors and the software application developers to access the database and provide fixes for bugs in software for the mobile device (The Master Data Store 300 will allow for rapid access to known bugs and application conflicts: p. 16, lines 2-3.).

#### Claim 6

The method of claim 1 further comprising, allowing hardware vendors and the software application developers to query the database and search the device profile data while preserving privacy of a subscriber of the mobile device (Information is shared with the hardware vendors and software application developers while subscriber privacy is preserved: p. 19, lines 20-23.).

#### Claim 7

The method of claim 1 further comprising, allowing hardware vendors and the software application developers to access the database and obtain reports on stability of

an application in the mobile device (A reporting tool allows searches based on any non-personally identifiable fields gathered by the embedded diagnostic device agent 700. This interface allows external developers 500 to access reports on their application stability: p. 19, lines 20-25.).

#### Claim 14

A mobile care framework (Fig. 1 shows a mobile care framework 1: p. 8, line 12) comprising:

a customer care application (Fig. 1, 230: Our framework 1 includes web-based customer support representative facing screens on a customer service center application 230 that help customer service center staff quickly diagnose and solve problems for mobile device subscribers: p. 12, lines 4-6.);

a data store accessible by the customer care application (The customer care application 230 is in communication with the data store 300: p. 13, lines 1-2.);

an analytics engine for communication between the customer care application and the data store (The analytics engine 340 communicates with the data store 320 and customer care application 230 to match fixes or resolutions: p. 13, lines 17-20.);

a device agent in a mobile device that captures device profile data and responds to commands received over-the-air from the customer care application (The device agent 700 is a software application that resides and runs directly on the mobile device, sends data from the device, and receives incoming data from our application server 200: p. 9, lines 14-16. The device agent gathers diagnostic data: p. 10, line 1.);

wherein the customer care application is programmed:

(a) to receive the device profile data from the mobile device, use the analytics engine to correlate the device profile data with a database of known issues and associated solutions in the data store, and forward a solution to the device agent for execution on the mobile device (The analytics engine 340 utilizes rule-sets to match the criteria of known fixes or resolutions and returns the identifier(s) to the matching resolution(s) contained in the on-site Mobile Care Data Store 320: p. 13, lines 17-20.); and

(b) to match the device profile data to a customer profile, the customer profile including a profile history (A determination is made if there is an update 340A or



solution corresponding to the customer's profile history and device profile, and if so, what is the optimal update or solution: p. 18, lines 15-19.);

wherein the device profile data comprises user-specific and device-specific data, and the analytics engine is programmed to identify solutions given the user-specific and device-specific data in the device profile data (The device agent gathers both user-specific and device-specific data: p. 10, lines 1-8. The analytics engine matches fixes or resolutions: p. 13, lines 17-19.); and

wherein the database is accessible to hardware vendors and software application developers to provide updates and patches to the database for fixing software problems in mobile devices, and the hardware vendors and software application developers query the database to obtain statistics on a number of the mobile devices having a particular installed software (The master data store is linked to hardware vendors and application developers: p. 16, lines 5-9. Hardware vendors and application developers can query the data store: p. 20, lines 17-18. The interface also preferably provides the developers and vendors 500 access to non-personally identifiable statistics from the Device Profile Data Store 330 such as number of device X with operating system Y. This feature allows the developers and vendors 500 to allocate resources according to install-base: p. 20, lines 9-12.).

#### Claim 17

The mobile care framework of claim 14, wherein the hardware vendors and software application developers access the database to obtain reports on stability of applications in the mobile devices (A reporting tool allows searches based on any non-personally identifiable fields gathered by the embedded diagnostic device agent 700. This interface allows external developers 500 to access reports on their application stability: p. 19, lines 20-25.).

#### Claim 18

The mobile care framework of claim 14, wherein the hardware vendors and software application developers query the database and search the device profile data while privacy information of subscriber of the mobile device is preserved (Information is

shared with the hardware vendors and software application developers while subscriber privacy is preserved: p. 19, lines 20-23.).

Claim 24

A mobile phone, comprising:

a device agent (Fig. 1, 700) that communicates over-the-air with a customer care application (Fig. 1, 230) within a mobile care framework (Fig. 1, 1) to provide device profile data comprising user-specific and device-specific data that enables the customer care application to match the device profile data to a customer profile (The device agent gathers both user-specific and device-specific data: p. 10, lines 1-8. The analytics engine matches fixes or resolutions: p. 13, lines 17-19.), the device agent programmed to receive and execute a solution received over-the-air from the customer care application (The device agent receives and executes at least one solution selectively forwarded over-the-air by the customer care application: p. 7, lines 18-19.), and further programmed to capture the device profile data from the mobile device and execute the solution on the mobile device (The customer care application is programmed to use the over-the-air connection to capture device profile data from the at least one device agent for correlation by the analytics engine: p. 6, lines 11-12), the solution based on the user-specific and device-specific data in the device profile data (The device agent gathers both user-specific and device-specific data: p. 10, lines 1-8. The analytics engine matches fixes or resolutions: p. 13, lines 17-19), wherein the device profile data is accessible by software application developers and hardware vendors to provide fixes for bugs in software in the mobile device, and the hardware vendors and the software application developers query the device profile data to obtain statistics on particular installed software (The master data store is linked to hardware vendors and application developers: p. 16, lines 5-9. Hardware vendors and application developers can query the data store: p. 20, lines 17-18. The interface also preferably provides the developers and vendors 500 access to non-personally identifiable statistics from the Device Profile Data Store 330 such as number of device X with operating system Y. This feature allows the developers and vendors 500 to allocate resources according to install-base: p. 20, lines 9-12.).

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1-8, 10-20, 22, and 23 are rejected under 35 USC § 103(a) as being unpatentable over US publication number 2001/0053688 (Rignell) in view of USPN 6,549,770 (Marran) and WO 98/38823 (Lawrence) and US publication number 2002/0116665 (Pickover) and US publication number 2002/0198976 (Davenport).

Claims 6 and 18 are rejected under 35 USC § 103(a) as being unpatentable over US publication number 2001/0053688 (Rignell) in view of USPN 6,549,770 (Marran) and WO 98/38823 (Lawrence) and US publication number 2002/0116665 (Pickover) and US publication number 2002/0198976 (Davenport) and US 6,895,387 (Roberts).

Claims 7 and 17 are rejected under 35 USC § 103(a) as being unpatentable over US publication number 2001/0053688 (Rignell) in view of USPN 6,549,770 (Marran) and WO 98/38823 (Lawrence) and US publication number 2002/0116665 (Pickover) and US publication number 2002/0198976 (Davenport) and US publication number 2003/0005108 (Bartley).

Claim 9 is rejected under 35 USC § 103(a) as being unpatentable over Rignell, Marran, Lawrence, Pickover, Davenport, and US publication number 2003/0295753 (Homuth).

Claim 21 is rejected under 35 USC § 103(a) as being unpatentable over Rignell, Marran, Lawrence, Pickover, and Davenport, and US publication number 2002/0178241 (Eriksson).

Claims 27-28 are rejected under 35 USC § 103(a) as being unpatentable over Rignell, Marran, Lawrence, Pickover, Davenport, and US publication number 2004/0215830 (Shenfield).

Claims 24-26 are rejected under 35 USC § 103(a) as being unpatentable over Rignell in view of Lawrence, Pickover, and Davenport.

Claim 29 is rejected under 35 USC § 103(a) as being unpatentable over Rignell, Lawrence, Pickover, Davenport, and Shenfield.

## **VII. ARGUMENT**

The rejection of claims 1-2, 4-14, and 16-29 is improper, and Appellants respectfully request reversal of these rejections.

The claims do not stand or fall together. Instead, Appellants present separate arguments for various independent and dependent claims. Each of these arguments is separately argued below and presented with separate headings and sub-heading as required by 37 C.F.R. § 41.37(c)(1)(vii).

### **Claim Rejections: 35 USC § 103(a)**

Claims 1-8, 10-20, 22, and 23 are rejected under 35 USC § 103(a) as being unpatentable over US publication number 2001/0053688 (Rignell) in view of USPN 6,549,770 (Marran) and WO 98/38823 (Lawrence) and US publication number 2002/0116665 (Pickover) and US publication number 2002/0198976 (Davenport). These rejections are traversed.

### **Principles of Law: Claim Construction**

During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification (see *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969); *In re Am. A cad. a/Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004)).

Although a patent applicant is entitled to be his or her own lexicographer of terms in a claim, in *ex parte* prosecution the lexicography must be within limits. *In re Carr*, 347 F.2d 578, 580 (CCPA 1965). The applicant must do so by placing such definitions in the specification with sufficient clarity to provide a person of ordinary skill in the art with clear and precise notice of the meaning that is to be construed. *See also In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (although an inventor is free to define the specific terms used to describe the invention, this must be done with reasonable clarity, deliberateness, and precision; where an inventor chooses to give terms uncommon meanings, the inventor must set out any uncommon definition in some manner within the patent disclosure so as to give one of ordinary skill in the art notice of the change).

Principles of Law: Obviousness

The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. § 103 is set forth in *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, 82 USPQ2d 1385 (2007):

Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. Quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966).

As set forth in MPEP 2143.03, to ascertain the differences between the prior art and the claims at issue, “[a]ll claim limitations must be considered” because “all words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385.

According to the Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in view of *KSR International Co. v. Teleflex Inc.*, Federal Register, Vol. 72, No. 195, 57526, 57529 (October 10, 2007), once the *Graham* factual inquiries are resolved, there must be a determination of whether the claimed invention would have been obvious to one of ordinary skill in the art based on any one of the following proper rationales:

(A) Combining prior art elements according to known methods to yield predictable results; (B) Simple substitution of one known element for another to obtain predictable results; (C) Use of known technique to improve similar devices (methods, or products) in the same way; (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable

results; (E) “Obvious to try”—choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; (F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, 82 USPQ2d 1385 (2007).

Furthermore, as set forth in *KSR International Co. v. Teleflex Inc.*, quoting from *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006), “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasonings with some rational underpinning to support the legal conclusion of obviousness.”

Therefore, if the above-identified criteria and rationales are not met, then the cited reference(s) fails to render obvious the claimed invention and, thus, the claimed invention is distinguishable over the cited reference(s).

#### Differences Between the Art and Claims

Each of the independent claims recites one or more elements that are not taught or suggested in Rignell in view of Marran, Lawrence, Pickover, and Davenport. These missing elements show that the differences between the combined teachings in the art and the recitations in the claims are great. As such, the pending claims are not a predictable variation of the art to one of ordinary skill in the art.

These differences are shown below and presented with separate headings for different claim groups.

Sub-Heading: Independent Claims 1 and 14

Claim 1 is selected for discussion.

As one example, independent claim 1 recites allowing hardware vendors and the software application developers to query the database and obtain statistics on a number of mobile devices with a particular installed software. The Examiner argues that these recitations are taught in paragraph [0014] of Davenport. Appellants respectfully disagree.

As discussed in paragraph [0014] of Davenport, an application executes on a computer to collect data about performance parameters, such as processor speed of the computer. The data is stored on the computer and then is transmitted (in the form of a session file) to a server for further processing (see Davenport at paragraph [0012]). The server processes the data and generates a summary which is transmitted to a data warehouse server for analysis and reporting in an on-line analytic processing (OLAP) environment (see Davenport at paragraph [0013]). Davenport further explains how the processed data is used: “In this way, a report 216 can be generated using the data as organized in the data warehouse server 214 and a report application, such as Microsoft Excel, to view the data in a desired format” (see Davenport at paragraph [0108]).

Thus, Davenport teaches that the data is provided in a report for viewing. This teaching is quite different than the elements in the claims. For example, claim 1 recites that the hardware vendors and the software application developers query the database. By contrast, the manufacturer in Davenport does not “query” the database, but is provided with a report for viewing.

This claim recitation presents a significant difference over the teachings in Davenport. As explained in Appellants’ specification, hardware and software vendors are thus able to cure software bugs:

Hardware vendors and the development community 500 are preferably given access to the Mobile Care Data Store 300 to provide updates, patches or resolutions matching problem/symptom criteria. For example, a smartphone camera vendor may find a bug in their camera driver that surfaces when device=X and operating system version=Y. Once the fix has been created, the file and criteria for applying the fix can be inserted



into the Mobile Care Data Store 300, so that device profiles returning X, Y together can receive the bug fix. {See Appellants' specification at p. 20, lines 1-7.}

Thus, claim 1 recites recitations that provide a significant and non-predictable variation over the teachings and suggestions in Davenport.

By way of further example, claim 1 recites that the hardware vendors and the software application developers obtain "statistics on a number of mobile devices with a particular installed software." Nowhere does Davenport teach that the manufacturers obtain this type of information. Davenport teaches that the manufacturers obtain "information such as the processor speed of the computer system, the amount of its random access memory of the speed of the computer's Internet access" (see Davenport at paragraph [0011]). Davenport never suggests that the manufacturers obtain "statistics on a number of mobile devices with a particular installed software."

This claim recitation presents a significant difference over the teachings in Davenport. As explained in Appellants' specification, hardware and software vendors are able to determine a number of devices (such as phones) installed with the software and then allocate resources to curing this problem:

The interface also preferably provides the developers and vendors 500 access to non-personally identifiable statistics from the Device Profile Data Store 330 such as number of device X with operating system Y. This feature allows the developers and vendors 500 to allocate resources according to install-base. {See Appellants' specification at p. 20, lines 9-12.}

Thus, claim 1 recites recitations that provide a significant and non-predictable variation over the teachings and suggestions in Davenport.

The differences between the claims and the teachings in the art are great since the references fail to teach or suggest all of the claim elements. As such, the pending claims are not a predictable variation of the art to one of ordinary skill in the art.

For at least these reasons, the claims are allowable over the art of record.

Hindsight Construction (Picking and Choosing)

In order to reject independent claims 1 and 14, the Examiner combines **five different references** to allegedly obviate the claims. Appellants respectfully assert that the Examiner is using knowledge of Appellants' invention and then performing hindsight reconstruction to show the various claim elements. In other words, the Office Action is picking and choosing unrelated teachings from numerous isolated references. On this subject, the case law is clear: One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

Sub-Heading: Dependent Claim 2

Dependent claim 2 recites allowing the hardware vendors and the software application developers to access the database and provide fixes for bugs in software for the mobile device. The Examiner argues that this claim element is taught in paragraphs [0026] – [0027] and [0047] in Pickover. Appellants respectfully disagree.

Paragraphs [0026] – [0027] in Pickover teach that software vendors provide patches directly to the user devices or to a controller that distributes the patches to user devices. Nowhere do these paragraphs teach or even suggest that the software vendors “access the database.” A software vendor can have permission to transmit a patch to a database, but this permission would not give the software vendor access to the database. Access to a database requires special permission rights that are not taught or even suggested in Pickover.

**Claim Rejections: 35 USC § 103(a)**

Claims 6 and 18 are rejected under 35 USC § 103(a) as being unpatentable over US publication number 2001/0053688 (Rignell) in view of USPN 6,549,770 (Marran) and WO 98/38823 (Lawrence) and US publication number 2002/0116665 (Pickover) and US publication number 2002/0198976 (Davenport) and US 6,895,387 (Roberts). These rejections are traversed.

**Sub-Heading: Dependent Claims 6 and 18**

Dependent claim 6 is selected for discussion.

Dependent claim 6 recites allowing hardware vendors and the software application developers to query the database and search the device profile data while preserving privacy of a subscriber of the mobile device. The Examiner argues that this claim element is taught in Roberts at column 3, lines 39-45; and column 6, lines 37-60. Appellants respectfully disagree.

Roberts at column 3, lines 39-45 teach that a vendor can target advertisements to users while protecting privacy information regarding the user and/or the user's device against unauthorized access. In Roberts, the vendors are advertisers, not hardware vendors and software vendors. Furthermore, the vendors in Robert are not querying a database and searching for device profiles. Instead, the vendors are sending out advertisements to users.

Roberts at column 6, lines 37-60 teaches that a marketing module scans computers of users to determine profiles used to market to the users. This profile information includes hardware information of the user's computer. Nowhere does this section of Roberts teach or even suggest that hardware vendors and software vendors query a database. The vendors in Roberts are advertisers marketing to users. Furthermore, the vendors in Robert are not querying a database and searching for device profiles. Instead, a marketing program is searching user computers, not a database of device profiles of these users.

**Claim Rejections: 35 USC § 103(a)**

Claims 7 and 17 are rejected under 35 USC § 103(a) as being unpatentable over US publication number 2001/0053688 (Rignell) in view of USPN 6,549,770 (Marran) and WO 98/38823 (Lawrence) and US publication number 2002/0116665 (Pickover) and US publication number 2002/0198976 (Davenport) and US publication number 2003/0005108 (Bartley). These rejections are traversed.

**Sub-Heading: Dependent Claims 7 and 17**

Dependent claim 7 is selected for discussion.

Dependent claim 7 recites allowing hardware vendors and the software application developers to access the database and obtain reports on stability of an application in the mobile device. The Examiner argues that this claim element is taught in paragraphs [0020] and [0021] in Bartley. Appellants respectfully disagree.

Paragraphs [0020] and [0021] in Bartley teach a method and system that allows access to performance data of a computer system of a customer only if the customer enables transmission of the performance data to the vendor. Figure 1 in Bartley shows the computer system, which is not a mobile device as recited in claim 7. Furthermore, in Bartley, the vendors receive a transmission of the performance data (see paragraph [0023] in Bartley). The vendors are not accessing a database. Receiving data from a remote system is very different than accessing a database to obtain the information. Nowhere does Bartley teach or even suggest that the vendors access the database to obtain the performance data.

**Claim Rejections: 35 USC § 103(a)**

Claim 9 is rejected under 35 USC § 103(a) as being unpatentable over Rignell, Marran, Lawrence, Pickover, Davenport, and US publication number 2003/0295753 (Homuth). This rejection is traversed.

As explained above, Rignell, Marran, Lawrence, Pickover, and Davenport fail to teach or suggest all of the elements of independent claim 1. Homuth fails to cure these deficiencies. For at least the reasons given with respect to independent claim 1, dependent claim 9 is allowable over Picher in view of Rignell, Marran, Lawrence, Pickover, Davenport, and Homuth.

**Claim Rejections: 35 USC § 103(a)**

Claim 21 is rejected under 35 USC § 103(a) as being unpatentable over Rignell, Marran, Lawrence, Pickover, and Davenport, and US publication number 2002/0178241 (Eriksson). This rejection is traversed.

As explained above, Rignell, Marran, Lawrence, Pickover, and Davenport fail to teach or suggest all of the elements of independent claim 14. Eriksson fails to cure these deficiencies. For at least the reasons given with respect to independent claim 14, dependent claim 21 is allowable over Picher in view of Rignell, Marran, Lawrence, Pickover, Davenport, and Eriksson.

**Claim Rejections: 35 USC § 103(a)**

Claims 27-28 are rejected under 35 USC § 103(a) as being unpatentable over Rignell, Marran, Lawrence, Pickover, Davenport, and US publication number 2004/0215830 (Shenfield). This rejection is traversed.

As explained above, Rignell, Marran, Lawrence, Pickover, and Davenport fail to teach or suggest all of the elements of independent claim 24. Shenfield fails to cure these deficiencies. For at least the reasons given with respect to independent claim 24, dependent claims 27-28 are allowable over Picher in view of Rignell, Marran, Lawrence, Pickover, Davenport, and Shenfield.

**Claim Rejections: 35 USC § 103(a)**

Claims 24-26 are rejected under 35 USC § 103(a) as being unpatentable over Rignell in view of Lawrence, Pickover, and Davenport. These rejections are traversed.

Claims 24-26 recite one or more elements that are not taught or suggested in Rignell in view of Lawrence, Pickover, and Davenport. These missing elements show that the differences between the combined teachings in the art and the recitations in the claims are great. As such, the pending claims are not a predictable variation of the art to one of ordinary skill in the art.

**Sub-Heading: Independent Claim 24**

As one example, independent claim 24 recites a mobile phone including device profile data that is accessible by software application developers and hardware vendors to provide fixes for bugs in software in the mobile device. The Examiner argues that these recitations are taught in Pickover. Appellants respectfully disagree.

Pickover teaches that software vendors provide patches directly to the user devices or to a controller that distributes the patches to user devices. Nowhere do these paragraphs teach or even suggest that the software vendors have access to profile data in a mobile phone. Instead, the information is transmitted to the vendors in Pickover. The vendors are not accessing profile data in a mobile phone to obtain the data.

As another example, independent claim 24 recites that the hardware vendors and the software application developers query the device profile data to obtain statistics on particular installed software. The Examiner argues that these recitations are taught in paragraph [0014] of Davenport. Appellants respectfully disagree.

As discussed in paragraph [0014] of Davenport, an application executes on a computer to collect data about performance parameters, such as processor speed of the computer. The data is stored on the computer and then is transmitted (in the form of a session file) to a server for further processing (see Davenport at paragraph [0012]). The server processes the data and generates a summary which is transmitted to a data warehouse server for analysis and reporting in an on-line analytic processing (OLAP) environment (see Davenport at paragraph [0013]). Davenport further explains how the processed data is used: “In this way, a report 216 can be generated using the data as organized in the data warehouse server 214 and a report application, such as Microsoft Excel, to view the data in a desired format” (see Davenport at paragraph [0108]).

Thus, Davenport teaches that the data is provided in a report for viewing. This teaching is quite different than the elements in the claims. For example, claim 24 recites that the hardware vendors and the software application developers query the device profile data. By contrast, the manufacturer in Davenport does not “query” a mobile phone, but is provided with a report for viewing.

This claim recitation presents a significant difference over the teachings in Davenport. As explained in Appellants’ specification, hardware and software vendors are thus able to cure software bugs:

Hardware vendors and the development community 500 are preferably given access to the Mobile Care Data Store 300 to provide updates, patches or resolutions matching problem/symptom criteria. For example, a

smartphone camera vendor may find a bug in their camera driver that surfaces when device=X and operating system version=Y. Once the fix has been created, the file and criteria for applying the fix can be inserted into the Mobile Care Data Store 300, so that device profiles returning X, Y together can receive the bug fix. {See Appellants' specification at p. 20, lines 1-7.}

Thus, claim 24 recites recitations that provide a significant and non-predictable variation over the teachings and suggestions in Davenport.

By way of further example, claim 24 recites that the hardware vendors and the software application developers obtain "statistics on particular installed software." Nowhere does Davenport teach that the manufacturers obtain this type of information. Davenport teaches that the manufacturers obtain "information such as the processor speed of the computer system, the amount of its random access memory of the speed of the computer's Internet access" (see Davenport at paragraph [0011]). Davenport never suggests that the manufacturers obtain "statistics on particular installed software."

This claim recitation presents a significant difference over the teachings in Davenport. As explained in Appellants' specification, hardware and software vendors are able to determine a number of devices (such as mobile phones) installed with the software and then allocate resources to curing this problem:

The interface also preferably provides the developers and vendors 500 access to non-personally identifiable statistics from the Device Profile Data Store 330 such as number of device X with operating system Y. This feature allows the developers and vendors 500 to allocate resources according to install-base. {See Appellants' specification at p. 20, lines 9-12.}

Thus, claim 24 recites recitations that provide a significant and non-predictable variation over the teachings and suggestions in Davenport.

The differences between the claims and the teachings in the art are great since the references fail to teach or suggest all of the claim elements. As such, the pending claims are not a predictable variation of the art to one of ordinary skill in the art.

For at least these reasons, the claims are allowable over the art of record.

**Claim Rejections: 35 USC § 103(a)**

Claim 29 is rejected under 35 USC § 103(a) as being unpatentable over Rignell, Lawrence, Pickover, Davenport, and Shenfield. This rejection is traversed.

As explained above, Rignell, Lawrence, Pickover, and Davenport fail to teach or suggest all of the elements of independent claim 24. Shenfield fails to cure these deficiencies. For at least the reasons given with respect to independent claim 24, dependent claim 29 is allowable over Rignell, Lawrence, Pickover, Davenport, and Shenfield.



### **CONCLUSION**

In view of the above, Appellants respectfully request the Board of Appeals to reverse the Examiner's rejection of all pending claims.

Any inquiry regarding this Amendment and Response should be directed to Philip S. Lyren at Telephone No. 832-236-5529. In addition, all correspondence should continue to be directed to the following address:

**Hewlett-Packard Company**  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, Colorado 80527-2400

Respectfully submitted,

/Philip S. Lyren #40,709/

Philip S. Lyren  
Reg. No. 40,709  
Ph: 832-236-5529

### **VIII. Claims Appendix**

1. A method of providing customer care within a mobile care framework, comprising:

capturing device profile data over-the-air from a device agent within a mobile device, the device profile data comprising user-specific and device-specific data;

matching the device profile data to a customer profile, the customer profile including a profile history;

correlating the device profile data to a database of known mobile device issues and associated solutions to the mobile device issues using an analytics engine programmed to identify a solution for the mobile device;

forwarding to the mobile device over-the-air the solution identified by the analytics engine for execution by the device agent, wherein the device agent is programmed to capture the device profile data and execute the solution on the mobile device;

receiving, to the database from software application developers, updates or patches that match problem criteria of the mobile device issues; and

allowing hardware vendors and the software application developers to query the database and obtain statistics on a number of mobile devices with a particular installed software.

2. The method of claim 1 further comprising, allowing the hardware vendors and the software application developers to access the database and provide fixes for bugs in software for the mobile device.

3. (Canceled)

4. The method of claim 1, wherein the capturing step comprises reading device profile data selected from the group consisting of configuration settings, resident applications, and diagnostic data.

5. The method of claim 4, wherein the diagnostic data comprises diagnostic data selected from the group consisting of make and model of the device, total and available memory, total and available storage, battery life, connection strength, connection settings, user requests, usage statistics, soft reset count, recently used applications, memory heap.

6. The method of claim 1 further comprising, allowing hardware vendors and the software application developers to query the database and search the device profile data while preserving privacy of a subscriber of the mobile device.

7. The method of claim 1 further comprising, allowing hardware vendors and the software application developers to access the database and obtain reports on stability of an application in the mobile device.

8. The method of claim 1, wherein the correlating step comprises automatically selecting one or more solutions from among available application or firmware updates, configuration settings, problem resolutions, and user interface configurations.

9. The method of claim 1, wherein the correlating step further comprises escalating the problem to a second level customer service support bureau.
10. The method of claim 1, wherein the method is performed at the request of a user of the mobile device.
11. The method of claim 1, wherein the method is performed as a scheduled event automatically by the device agent.
12. The method of claim 1, wherein the method is performed at the request of a customer care center.
13. The method of claim 12, wherein there are a plurality of mobile devices, and the customer care center performs the method for more than one mobile device substantially at the same time.
14. A mobile care framework comprising:
  - a customer care application;
  - a data store accessible by the customer care application;
  - an analytics engine for communication between the customer care application and the data store;
  - a device agent in a mobile device that captures device profile data and responds to commands received over-the-air from the customer care application;

wherein the customer care application is programmed:

(a) to receive the device profile data from the mobile device, use the analytics engine to correlate the device profile data with a database of known issues and associated solutions in the data store, and forward a solution to the device agent for execution on the mobile device; and

(b) to match the device profile data to a customer profile, the customer profile including a profile history;

wherein the device profile data comprises user-specific and device-specific data, and the analytics engine is programmed to identify solutions given the user-specific and device-specific data in the device profile data; and

wherein the database is accessible to hardware vendors and software application developers to provide updates and patches to the database for fixing software problems in mobile devices, and the hardware vendors and software application developers query the database to obtain statistics on a number of the mobile devices having a particular installed software.

15. (Canceled)

16. The mobile care framework of claim 14, wherein the device profile data comprises diagnostic data selected from the group consisting of make and model of the device, total and available memory, total and available storage, battery life, connection strength, connection settings, user requests, usage statistics, soft reset count, recently used applications, memory heap.

17. The mobile care framework of claim 14, wherein the hardware vendors and software application developers access the database to obtain reports on stability of applications in the mobile devices.

18. The mobile care framework of claim 14, wherein the hardware vendors and software application developers query the database and search the device profile data while privacy information of subscriber of the mobile device is preserved.

19. The mobile care framework of claim 14, wherein the analytics engine is programmed to select at least one solution from among available application or firmware updates, configuration settings, problem resolutions, user interface configurations.

20. The mobile care framework of claim 14, wherein the device agent comprises an embedded application.

21. The mobile care framework of claim 14, wherein the data store is linked to vendor and community support.

22. The mobile care framework of claim 14, wherein the customer care application comprises a customer service representative interface.

23. The mobile care framework of claim 14, wherein the analytics engine comprises a

rule-based application.

24. A mobile phone, comprising:

a device agent that communicates over-the-air with a customer care application within a mobile care framework to provide device profile data comprising user-specific and device-specific data that enables the customer care application to match the device profile data to a customer profile, the device agent programmed to receive and execute a solution received over-the-air from the customer care application, and further programmed to capture the device profile data from the mobile device and execute the solution on the mobile device, the solution based on the user-specific and device-specific data in the device profile data, wherein the device profile data is accessible by software application developers and hardware vendors to provide fixes for bugs in software in the mobile device, and the hardware vendors and the software application developers query the device profile data to obtain statistics on particular installed software.

25. The mobile device of claim 24, wherein the device agent comprises a user prompt to provide the device profile data to the customer care application and receive and execute solutions.

26. The mobile device of claim 24, wherein the device agent comprises a scheduler for timing scheduled provision of the device profile data to the customer care application and receiving and executing solutions.

27. The method of claim 1, wherein the device profile data comprises XML data and the solution forwarded comprises XML data.

28. The framework of claim 14, wherein the device profile data comprises XML data and the solution forwarded comprises XML data.

29. The mobile device of claim 24, wherein the device profile data comprises XML data and the solution forwarded comprises XML data.



**IX. EVIDENCE APPENDIX**

None.

**X. RELATED PROCEEDINGS APPENDIX**

None.